

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/517,702
Source: Pg 10
Date Processed by STIC: 11/3/05

ENTERED



PCT

RAW SEQUENCE LISTING

DATE: 11/03/2005

PATENT APPLICATION: US/10/517,702

TIME: 08:21:24

Input Set : A:\2005-07-18 3691-0113PUS1.ST25.txt

Output Set: N:\CRF4\11032005\J517702.raw

```

3 <110> APPLICANT: SODE, Koji
5 <120> TITLE OF INVENTION: GLUCOSE DEHYDROGENASE
7 <130> FILE REFERENCE: 3691-0113PUS1
9 <140> CURRENT APPLICATION NUMBER: US 10/517,702
10 <141> CURRENT FILING DATE: 2004-12-13
12 <150> PRIOR APPLICATION NUMBER: PCT/JP03/07542
13 <151> PRIOR FILING DATE: 2003-06-13
15 <160> NUMBER OF SEQ ID NOS: 19
17 <210> SEQ ID NO: 1
18 <211> LENGTH: 454
19 <212> TYPE: PRT
20 <213> ORGANISM: Acinetobacter calcoaceticus
22 <400> SEQUENCE: 1
23 Asp Val Pro Leu Thr Pro Ser Gln Phe Ala Lys Ala Lys Ser Glu Asn
24 1 5 10 15
25 Phe Asp Lys Lys Val Ile Leu Ser Asn Leu Asn Lys Pro His Ala Leu
26 20 25 30
27 Leu Trp Gly Pro Asp Asn Gln Ile Trp Leu Thr Glu Arg Ala Thr Gly
28 35 40 45
29 Lys Ile Leu Arg Val Asn Pro Glu Ser Gly Ser Val Lys Thr Val Phe
30 50 55 60
31 Gln Val Pro Glu Ile Val Asn Asp Ala Asp Gly Gln Asn Gly Leu Leu
32 65 70 75 80
33 Gly Phe Ala Phe His Pro Asp Phe Lys Asn Asn Pro Tyr Ile Tyr Ile
34 85 90 95
35 Ser Gly Thr Phe Lys Asn Pro Lys Ser Thr Asp Lys Glu Leu Pro Asn
36 100 105 110
37 Gln Thr Ile Ile Arg Arg Tyr Thr Tyr Asn Lys Ser Thr Asp Thr Leu
38 115 120 125
39 Glu Lys Pro Val Asp Leu Leu Ala Gly Leu Pro Ser Ser Lys Asp His
40 130 135 140
41 Gln Ser Gly Arg Leu Val Ile Gly Pro Asp Gln Lys Ile Tyr Tyr Thr
42 145 150 155 160
43 Ile Gly Asp Gln Gly Arg Asn Gln Leu Ala Tyr Leu Phe Leu Pro Asn
44 165 170 175
45 Gln Ala Gln His Thr Pro Thr Gln Gln Glu Leu Asn Gly Lys Asp Tyr
46 180 185 190
47 His Thr Tyr Met Gly Lys Val Leu Arg Leu Asn Leu Asp Gly Ser Ile
48 195 200 205
49 Pro Lys Asp Asn Pro Ser Phe Asn Gly Val Val Ser His Ile Tyr Thr
50 210 215 220
51 Leu Gly His Arg Asn Pro Gln Gly Leu Ala Phe Thr Pro Asn Gly Lys
52 225 230 235 240

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```

53 Leu Leu Gln Ser Glu Gln Gly Pro Asn Ser Asp Asp Glu Ile Asn Leu
54           245           250           255
55 Ile Val Lys Gly Gly Asn Tyr Gly Trp Pro Asn Val Ala Gly Tyr Lys
56           260           265           270
57 Asp Asp Ser Gly Tyr Ala Tyr Ala Asn Tyr Ser Ala Ala Asn Lys
58           275           280           285
59 Ser Ile Lys Asp Leu Ala Gln Asn Gly Val Lys Val Ala Ala Gly Val
60           290           295           300
61 Pro Val Thr Lys Glu Ser Glu Trp Thr Gly Lys Asn Phe Val Pro Pro
62 305           310           315           320
63 Leu Lys Thr Leu Tyr Thr Val Gln Asp Thr Tyr Asn Tyr Asn Asp Pro
64           325           330           335
65 Thr Cys Gly Glu Met Thr Tyr Ile Cys Trp Pro Thr Val Ala Pro Ser
66           340           345           350
67 Ser Ala Tyr Val Tyr Lys Gly Gly Lys Lys Ala Ile Thr Gly Trp Glu
68           355           360           365
69 Asn Thr Leu Leu Val Pro Ser Leu Lys Arg Gly Val Ile Phe Arg Ile
70           370           375           380
71 Lys Leu Asp Pro Thr Tyr Ser Thr Thr Tyr Asp Asp Ala Val Pro Met
72 385           390           395           400
73 Phe Lys Ser Asn Asn Arg Tyr Arg Asp Val Ile Ala Ser Pro Asp Gly
74           405           410           415
75 Asn Val Leu Tyr Val Leu Thr Asp Thr Ala Gly Asn Val Gln Lys Asp
76           420           425           430
77 Asp Gly Ser Val Thr Asn Thr Leu Glu Asn Pro Gly Ser Leu Ile Lys
78           435           440           445
79 Phe Thr Tyr Lys Ala Lys
80           450
82 <210> SEQ ID NO: 2
83 <211> LENGTH: 1612
84 <212> TYPE: DNA
86 <213> ORGANISM: Acinetobacter calcoaceticus
88 <400> SEQUENCE: 2
90 agctactttt atgcaacaga gcctttcaga aatttagatt ttaatagatt cgttattcat 60
91 cataatacaa atcatataga gaactcgtac aaacccttta ttagagggtt aaaaattctc 120
92 ggaaaatttt gacaatttat aaggtggaca catgaataaa catttattgg ctaaaattgc 180
93 tttattaagc gctgttcagc tagttacact ctcagcattt gctgatgttc ctctaactcc 240
94 atctcaattt gctaaagcga aatcagagaa ctttgacaag aaagttattc tatctaattc 300
95 aaataagccg catgctttgt tatggggacc agataatcaa atttggttaa ctgagcgagc 360
96 aacaggtaag attctaagag ttaatccaga gtcgggtagt gtaaaaacag tttttcaggt 420
97 accagagatt gtcaatgatg ctgatgggca gaatggttta ttaggttttg ccttccatcc 480
98 tgatttttaa aataatcctt atatctatat ttcaggtaga tttaaaaatc cgaaatctac 540
99 agataaagaa ttaccgaacc aaacgattat tcgtcggtat acctataata aatcaacaga 600
100 tacgctcgag aagccagtcg atttatttagc aggattacct tcatcaaaag accatcagtc 660
101 aggtcgctct gtcattgggc cagatcaaaa gatttattat acgattggtg accaagggcg 720
102 taaccagctt gcttatttgt tcttgccaaa tcaagcaca catacgccaa ctcaacaaga 780
103 actgaatggt aaagactatc acacctatat gggtaaagta ctacgcttaa atcttgatgg 840
104 aagtattcca aaggataatc caagttttta cgggggtggt agccatattt atacacttgg 900
105 acatcgtaat ccgcagggct tagcattcac tccaaatggt aaattattgc agtctgaaca 960

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```

106 aggcccaaac tctgacgatg aaattaacct cattgtcaaa ggtggcaatt atggttggcc 1020
107 gaatgtagca gggtataaag atgatatgtg ctatgcttat gcaaattatt cagcagcagc 1080
108 caataagtca attaaggatt tagctcaaaa tggagtaaaa gtagccgcag gggtcctgt 1140
109 gacgaaagaa tctgaatgga ctggtaaaaa ctttgtccca ccattaaaaa ctttatatac 1200
110 cgttcaagat acctacaact ataacgatcc aacttgtgga gagatgacct acatttgtctg 1260
111 gccaacagtt gcaccgtcat ctgcctatgt ctataagggc ggtaaaaaag caattactgg 1320
112 ttgggaaaaat acattattgg ttccatcttt aaaacgtggt gtcattttcc gtattaagtt 1380
113 agatccaact tatagcacta cttatgatga cgctgtaccg atgtttaaga gcaacaaccg 1440
114 ttatcgtgat gtgattgcaa gtccagatgg gaatgtctta tatgtattaa ctgatactgc 1500
115 cggaaatgtc caaaaagatg atggctcagt acaaaataca ttagaaaacc caggatctct 1560
116 cattaagttc acctataagg ctaagtaata cagtcgcatt aaaaaaccga tc 1612

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118 <210> SEQ ID NO: 3

119 <211> LENGTH: 7

120 <212> TYPE: PRT

121 <213> ORGANISM: Acinetobacter calcoaceticus

123 <220> FEATURE:

124 <221> NAME/KEY: misc_feature

125 <222> LOCATION: (4)..(4)

126 <223> OTHER INFORMATION: Xaa is Met or Trp

128 <400> SEQUENCE: 3

W--> 129 Cys Gly Glu Xaa Thr Tyr Ile

131 <210> SEQ ID NO: 4

132 <211> LENGTH: 7

133 <212> TYPE: PRT

134 <213> ORGANISM: Acinetobacter calcoaceticus

136 <220> FEATURE:

137 <221> NAME/KEY: misc_feature

138 <222> LOCATION: (4)..(4)

139 <223> OTHER INFORMATION: Xaa is Asp, Lys, Ile or Asn

141 <400> SEQUENCE: 4

W--> 142 Gly Glu Met Xaa Tyr Ile Cys

144 <210> SEQ ID NO: 5

145 <211> LENGTH: 7

146 <212> TYPE: PRT

147 <213> ORGANISM: Acinetobacter calcoaceticus

149 <400> SEQUENCE: 5

150 Glu Met Thr Asp Ile Cys Trp

152 <210> SEQ ID NO: 6

153 <211> LENGTH: 7

154 <212> TYPE: PRT

155 <213> ORGANISM: Acinetobacter calcoaceticus

157 <400> SEQUENCE: 6

158 Met Thr Tyr Asp Cys Trp Pro

160 <210> SEQ ID NO: 7

161 <211> LENGTH: 7

162 <212> TYPE: PRT

163 <213> ORGANISM: Acinetobacter calcoaceticus

165 <400> SEQUENCE: 7

166 Thr Tyr Ile Arg Trp Pro Thr

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Input Set : A:\2005-07-18 3691-0113PUS1.ST25.txt

Output Set: N:\CRF4\11032005\J517702.raw

168 <210> SEQ ID NO: 8
169 <211> LENGTH: 7
170 <212> TYPE: PRT
171 <213> ORGANISM: Acinetobacter calcoaceticus
173 <400> SEQUENCE: 8
174 Pro Thr Val Pro Pro Ser Ser
176 <210> SEQ ID NO: 9
177 <211> LENGTH: 28
178 <212> TYPE: DNA
179 <213> ORGANISM: Artificial Sequence
181 <220> FEATURE:
182 <223> OTHER INFORMATION: synthetic oligonucleotide primer for point mutation
184 <400> SEQUENCE: 9
185 caaatgtagg taccctctcc acaagttg 28
187 <210> SEQ ID NO: 10
188 <211> LENGTH: 28
189 <212> TYPE: DNA
190 <213> ORGANISM: Artificial Sequence
192 <220> FEATURE:
193 <223> OTHER INFORMATION: synthetic oligonucleotide primer for point mutation
195 <400> SEQUENCE: 10
196 caaatgtagg ttccctctcc acaagttg 28
198 <210> SEQ ID NO: 11
199 <211> LENGTH: 32
200 <212> TYPE: DNA
201 <213> ORGANISM: Artificial Sequence
203 <220> FEATURE:
204 <223> OTHER INFORMATION: synthetic oligonucleotide primer for point mutation
206 <400> SEQUENCE: 11
207 cagcaaatgt agttcatctc tccacaagtt gg 32
209 <210> SEQ ID NO: 12
210 <211> LENGTH: 32
211 <212> TYPE: DNA
212 <213> ORGANISM: Artificial Sequence
214 <220> FEATURE:
215 <223> OTHER INFORMATION: synthetic oligonucleotide primer for point mutation
217 <400> SEQUENCE: 12
218 cagcaaatgt agatcatctc tccacaagtt gg 32
220 <210> SEQ ID NO: 13
221 <211> LENGTH: 30
222 <212> TYPE: DNA
223 <213> ORGANISM: Artificial Sequence
225 <220> FEATURE:
226 <223> OTHER INFORMATION: synthetic oligonucleotide primer for point mutation
228 <400> SEQUENCE: 13
229 gccagcaaat gtagtccatc tctccacaag 30
231 <210> SEQ ID NO: 14
232 <211> LENGTH: 30
233 <212> TYPE: DNA

RAW SEQUENCE LISTING
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Input Set : A:\2005-07-18 3691-0113PUS1.ST25.txt
Output Set: N:\CRF4\11032005\J517702.raw

234 <213> ORGANISM: Artificial Sequence
236 <220> FEATURE:
237 <223> OTHER INFORMATION: synthetic oligonucleotide primer for point mutation
239 <400> SEQUENCE: 14
240 gccagcaaat gtatttcac tctccacaag 30
242 <210> SEQ ID NO: 15
243 <211> LENGTH: 33
244 <212> TYPE: DNA
245 <213> ORGANISM: Artificial Sequence
247 <220> FEATURE:
248 <223> OTHER INFORMATION: synthetic oligonucleotide primer for point mutation
250 <400> SEQUENCE: 15
251 ccagcaaatg tcggtcatct ctccacaagt tgg 33
253 <210> SEQ ID NO: 16
254 <211> LENGTH: 19
255 <212> TYPE: DNA
256 <213> ORGANISM: Artificial Sequence
258 <220> FEATURE:
259 <223> OTHER INFORMATION: synthetic oligonucleotide primer for point mutation
261 <400> SEQUENCE: 16
262 ggccagcaat tgtaggtca 19
264 <210> SEQ ID NO: 17
265 <211> LENGTH: 21
266 <212> TYPE: DNA
267 <213> ORGANISM: Artificial Sequence
269 <220> FEATURE:
270 <223> OTHER INFORMATION: synthetic oligonucleotide primer for point mutation
272 <400> SEQUENCE: 17
273 ctgttgcca gcaaatgtag g 21
275 <210> SEQ ID NO: 18
276 <211> LENGTH: 24
277 <212> TYPE: DNA
278 <213> ORGANISM: Artificial Sequence
280 <220> FEATURE:
281 <223> OTHER INFORMATION: synthetic oligonucleotide primer for point mutation
283 <400> SEQUENCE: 18
284 gcagatgacg gtggaactgt tggc 24
286 <210> SEQ ID NO: 19
287 <211> LENGTH: 26
288 <212> TYPE: DNA
289 <213> ORGANISM: Artificial Sequence
291 <220> FEATURE:
292 <223> OTHER INFORMATION: synthetic oligonucleotide primer for point mutation
294 <400> SEQUENCE: 19
295 cctgactgat gttcttttga tgaagg 26

RAW SEQUENCE LISTING ERROR SUMMARY
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; Xaa Pos. 4⁷
Seq#:4; Xaa Pos. 4

VERIFICATION SUMMARY

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Input Set : A:\2005-07-18 3691-0113PUS1.ST25.txt

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L:129 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0

L:142 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0